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Graduate Program in Healthcare Administration

Case Study of Satellite TRICARE Clinic for Wilford Hall Medical Center

A Graduate Management Project Proposal Submitted to the Program Director in Partial Fulfillment of Requirements for the Degree of Master's in Health Administration

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By

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Wilford Hall Medical Center has the capacity to enroll more patients into its TRICARE Prime program, and the catchment area has nearly 80,000 beneficiaries who have not enrolled in TRICARE Prime. Increasing enrollment in WHMCs TRICARE program would serve several purposes: first, it would help WHMC meet the Air Force Surgeon Generals goal of recapturing workload currently lost to the civilian sector. Second, it may serve as a pipeline to the WHMCGME program, which is currently losing market share to other hospitals. Third, it may reduce TRICARE costs by providing care more economically within the direct-care system. This research project was conducted to determine whether or not a WHMC satellite TRICARE Clinic could increase enrollment while decreasing TRICARE costs enough to offset the expenses associated with creating and operating the clinic. Using net present value calculations and TRICARE bid-price adjustment figures, it was determined that such a clinic would not be cost-effective. However, when considering non-financial factors, such a clinic maybe deemed worthwhile, as it would likely increase the number of beneficiaries enrolled in TRICARE Prime and TRICARE Plus, as well as provide an additional source of patients for Graduate Medical Education training programs.

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Abstract

Wilford Hall Medical Center has the capacity to enroll more patients into its TRICARE Prime program, and the catchment area has nearly 80,000 beneficiaries who have not enrolled in TRICARE Prime. Increasing enrollment in WHMC's TRICARE program would serve several purposes: first, it would help WHMC meet the Air Force Surgeon General's goal of recapturing workload currently lost to the civilian sector. Second, it may serve as a pipeline to the WHMC GME program, which is currently losing market share to other hospitals. Third, it may reduce TRICARE costs by providing care more economically within the direct-care system.

This research project was conducted to determine whether or not a WHMC satellite TRICARE Clinic could increase enrollment while decreasing TRICARE costs enough to offset the expenses associated with creating and operating the clinic. Using net present value calculations and TRICARE bid-price adjustment figures, it was determined that such a clinic would not be cost-effective. However, when considering non-financial factors, such a clinic may be deemed worthwhile, as it would likely increase the number of beneficiaries enrolled in TRICARE Prime and TRICARE Plus, as well as provide an additional source of patients for Graduate Medical Education training programs.

Introduction

Overview of the 59th Medical Wing

The 59th Medical Wing, commonly referred to as Wilford Hall Medical Center (WHMC), is located at Lackland Air Force Base, approximately nine miles from downtown San Antonio, Texas. It is the largest medical treatment facility (MTF) in the Air Force Medical Service (AFMS), with approximately 3,848 staff members (includes active-duty, civilians, and contractors) and 288 operating beds. In 2000, WHMC saw 1,018,000 outpatient visits, admitted 16,800 patients, and accounted for over 71,400 occupied bed days. It is also a Graduate Medical Education (GME) center, has numerous specialty and sub-specialty clinics, and operates a Level 1 trauma center.

Conditions Which Prompted the Study

As an integral part of the Military Health System (MHS), WHMC offers beneficiaries in the catchment area the option to enroll in TRICARE Prime, which is the military's health plan that functions as a health-maintenance organization (HMO). TRICARE Prime offers enrollees enhanced benefits compared to TRICARE Standard, the military's indemnity-style health plan. Among the benefits are covered preventive health services, small co-payments, and guaranteed access standards. In return, members who enroll in TRICARE Prime must select a Primary Care Manager (PCM) who is responsible for providing primary care and arranging any specialty care needed by patients that are enrolled to that PCM.

The number of beneficiaries currently enrolled in WHMC's TRICARE Prime program is 55,846 (Weekly Capacity Report for Region VI, 2001), but the maximum achievable enrollment (MAE), according to the Air Force Surgeon General (AF/SG), is 80,000 (AFMS MAE, 2001). Therefore, capacity exists for up to 24,154 additional enrollees at WHMC. In addition, the

enrollment trendline for WHMC is down; the number of enrollees has actually declined slightly in recent months (TRICARE Management Activity Report, 2001).

There are an estimated 58,330 beneficiaries under the age of 65 in San Antonio that are not enrolled in TRICARE Prime, according to the Defense Eligibility and Enrollment Reporting System (DEERS, 2001). Of those, an estimated 15,930 are students and therefore not eligible for enrollment. Thus, there are an estimated 42,400 non-enrolled eligible beneficiaries. These beneficiaries use either fee-for-service care, other health insurance, or TRICARE Standard when obtaining care in the civilian sector, or else use the space-available medical care sometimes available at local MTFs.

In addition to the 42,400 unenrolled beneficiaries, there are an estimated 13,260 members over the age of 64 (commonly referred to as "65+") that are currently enrolled in a demonstration project called TRICARE Senior Prime (TSP). Under federal law that was effective until October 1, 2001, military retirees lost TRICARE coverage upon reaching age 65. TSP is a demonstration project that allowed 65+ members to receive care in certain MHS facilities (including WHMC) with Medicare reimbursing the MTFs. The TSP demonstration ended on December 31, 2001, at which point the newly created TRICARE For Life (TFL) program was activated as their supplemental insurance. Effective October 1, 2001, the TFL program gives TRICARE coverage to 65+ members; TRICARE will be the second payer after Medicare and any other health insurance. With the implementation of TFL, 65+ members are now able to receive care in the civilian community with Medicare as the first payor, any other health insurance (OHI) as the second payor, and TRICARE as the last payor.

Finally, there are an estimated 23,568 beneficiaries over the age of 64 in Bexar County who currently receive care either through other health insurance, "space available" in MTFs, or

via their Medicare benefits. As with the TSP enrollees, these beneficiaries are now able to utilize TRICARE to cover their out-of-pocket costs for many civilian healthcare needs. In summary, there are an estimated 79,228 beneficiaries in Bexar County who are, or soon will be, eligible to receive care in the civilian community with TRICARE as either the primary or secondary payor. A program called TRICARE Plus launched on January 1, 2002; this program is designed to enroll 65+ beneficiaries into MTF primary care clinics. TRICARE Plus is designed solely to provide primary care to enrollees; specialty care can be arranged either in the MTF or through the TRICARE network. Enrollment in TRICARE Plus is based solely on space-availability as determined by the MTF commander. Priority for enrollment will be given to former TSP enrollees, with more beneficiaries allowed to enroll as MTF capacity permits.

Two facts stand out from the above information: WHMC has the capacity to enroll more patients into its TRICARE Prime program, and the catchment area has nearly 80,000 beneficiaries who are covered by TRICARE but have not enrolled in TRICARE Prime or TRICARE Plus. WHMC is looking for ways to increase enrollment up to their maximum achievable level. Increasing enrollment serves several purposes. First, it will help WHMC meet the Air Force Surgeon General's goal, per Air Force Instruction 41-120, of recapturing workload currently lost to the civilian sector. Second, it may serve as a pipeline to the WHMC GME program. According to Colonel Karen Weis, the Deputy Chief of the Medical Staff (personal communication, November 30, 2001), the GME program has been affected by recent loss of market share to the civilian sector. Increasing TRICARE Prime enrollment may restore GME patient levels to historical levels. Finally, it presents the possibility of reducing TRICARE costs by providing care more economically within the direct-care system. With this knowledge, the WHMC Administrator, Colonel Thomas Peters, suggested that a study be performed to

determine if a satellite clinic, strategically located near the greatest number of unenrolled beneficiaries in north San Antonio, could be designed to provide care at a lower cost than is currently spent on these unenrolled beneficiaries by TRICARE.

Statement of the Problem

If WHMC is to create a satellite TRICARE Clinic to increase enrollment, several pieces of information must be gathered and analyzed. First, the size and related costs of creating and operating a TRICARE Clinic must be identified. Second, the number of unenrolled TRICARE beneficiaries and their location must be determined. The estimated number of beneficiaries who would enroll if a clinic were provided in north San Antonio must be calculated. Finally, the financial impact to the Managed Care Support Contract (MSCS) must be determined. The interaction between these three variables form the crux of the problem, which can best be described as: Will a TRICARE Clinic, located in north San Antonio, decrease TRICARE costs enough to offset the expenses associated with creating and operating the clinic?

Literature Review

The primary goal of any capital investment, such as proposed by this case study, is to analyze potential business ventures to decide whether or not to invest in them. Capital investments can be measured in two ways: financial returns and non-financial returns (Zelman, 1998). A WHMC TRICARE Clinic proposal should be analyzed in light of these broad categories. First, financial returns are paramount. If the project is not deemed to be cost-effective, there would be little point in proceeding. "Returns," in this context, would not be represented by actual revenues to WHMC; rather, they would be accounted for as a reduction in the dollar amount of TRICARE claims paid on behalf of enrollees to the TRICARE Clinic. While this does not currently provide a direct financial incentive to WHMC, the overall

government cost of providing care might decrease. The second category, non-financial benefits, addresses strategic and cultural benefits that may accrue to an organization from a capital investment. For example, creating a TRICARE Clinic could reinforce beneficiaries' beliefs that the MHS is looking out for their best interest and seeking new ways to serve them. It may also serve to support other elements of the AFMS and MHS mission, such as feeding patients into the GME program at WHMC. While the non-financial returns may prove useful, this case study primarily entails quantifying and analyzing the financial returns of a TRICARE project.

The most common types of capital investment analysis are the payback method and net present value (NPV) (Ross, 2000). The payback method calculates the length of time required to recoup an investment. The methodology is straightforward: total the projected revenues from *x* number of years and compare to expenses over the same time; if revenues exceed expenses within *x* years, the project is deemed to be profitable and, therefore, acceptable. While the payback method is the easiest method to understand and calculate when analyzing a capital investment, it does have flaws. First, it ignores the "time value of money" concept; all expenses and revenues are viewed in current year terms. Additionally, it uses an arbitrary cut-off point, represented in number of years (Zelman, 1998). According to Ross (2000), the payback method's shortcomings make it useful only for projects that require liquidity, will have a short payback period, and are relatively minor in the scope of the organization.

The other primary capital investment tool, NPV analysis, provides the delta between an investment's market value (cumulative value discounted over time) and the cost of investment (also discounted over time). The methodology is slightly more complex than that used for payback method analysis: identify all expenses and revenues for *x* years and then calculate the present discounted value of the revenues, using an appropriate discount factor; subtract the

expenses from the discounted revenues to arrive at the NPV. If NPV is greater than 0, the project is deemed to be profitable and, therefore, acceptable (Zelman, 1998). In other words, NPV is the present value of a project's expected revenue streams minus the amount of the initial investment and minus the expected operating expenses, with each year's dollar amounts modified using a given discount rate (Morse, 1991).

Opportunity costs are often included in NPV analysis as one component of the corporate cost of capital. In the case of WHMC, the opportunity cost of creating a TRICARE clinic is difficult to quantify. Within the military health system, the merits of new projects or services are often pitted against each other. The establishment of a TRICARE clinic must be evaluated by WHMC leadership, and identification of opportunity costs would involve a calculation to determine which of several competing projects is in the best interest of both the organization and the beneficiaries. In such situations, cost-benefit analysis may not be the sole criterion of such costs or projects; often cost-effectiveness and/or cost-utility analyses are done to complement cost-benefit analysis (Aday, 1998). Salvage costs are not considered in this case study, as the analysis considers only a five-year time period. Should the TRICARE clinic close before any equipment meets the "useful life" time period, such equipment could be utilized either at WHMC or another military facility via the Defense Reutilization and Marketing Office.

For this case study, a discount rate of 3.2% was used, per the U.S. Army Cost and Economic Analysis Center (Economic Analysis Manual, February, 2001). The use of this discount rate by federal agencies was confirmed with Major David Sherman (no relation to researcher), Financial Management Directorate, Office of the Secretary of the Air Force (personal communication, November 26, 2001). The advantages of using NPV over the payback method include: results are given in dollar terms, not years; the time value of money is factored

into calculations; and it is the most commonly-used type of cost-benefit analysis. The major disadvantage is that it can be difficult to determine the cost of capital (Zelman, 1998). However, since a discount rate has already been determined, this should not be a barrier to completion of an NPV analysis for this case study.

The primary tool that has been used by the AFMS in determining whether a proposed venture will be cost-effective is the Air Force Business Case Analysis (AF BCA) spreadsheet tool (Air Force Medical Applications Model, 2001). Developed by AFMS personnel in conjunction with Vector Research Incorporated in the mid-1990s, it is an Excel spreadsheet that outlines a step-by-step process to capture and enter relevant data, such as current costs of providing a service, projected costs of instituting a new service, and projected quantifiable benefits. It is essentially an NPV calculation. What distinguishes the AF BCA tool from a traditional cost-benefit analysis is that it incorporates a bid-price adjustment (BPA) worksheet that is designed to calculate the economic impact of associated changes to the TRICARE MCSC. The calculation focuses only on changes that occur as a result of workload shifts between the direct care system and the contracted providers in the civilian sector as a result of the analyzed actions. Discussions with Major Craig Mauch, Major David Montplaisir (Lead Agent Region VI), and Major Barbara Henning (WHMC Strategic Planning), indicate that it is not known how reliable the overall model is. While none of them were able to vouch for the formulas that are used by the tool, they did feel confident that it could be used to determine the financial impact to the MCSC. Major Louis DeFelice, an Air Force reserve officer, used the AF BCA tool extensively several years ago and was referenced by Lead Agent staff as one of the few experts on the spreadsheet. He stated that portions of the spreadsheet are outdated and should not be the sole factor in determining the cost-effectiveness of a given project (personal communication,

November 16, 2001). He further stated that the BPA section of the spreadsheet is the most reliable method of calculating the financial impact of workload changes that may occur as a result of creating a satellite clinic. Therefore, both the BPA portion of the AF BCA and the NPV model of capital investment analysis will be utilized to perform the cost-benefit analysis of the proposed TRICARE Clinic.

The goal of recapturing TRICARE workload is being echoed by many officials throughout the DoD. In 1999, the director of the TRICARE Management Activity (TMA), Dr. James Sears, included "optimize MTF capacity and recapture care" from the civilian sector as one of seven imperatives that he outlined for the MHS (TRICARE news release, 1999). Air Force instruction 41-120, Medical Resource Operations (AFI 41-120, 2001), instructs all MTFs to "identify opportunities to recapture patient care being accomplished in the civilian community." The AFMS Council (governing body) established two priority areas in 2001: the re-engineering of primary care services, and recapturing workload from the civilian sector (AETC/SG, 2001). Clearly, recapturing workload is an integral part of the MHS mission.

Purpose

This case study is designed to determine whether or not a TRICARE Clinic, located in north San Antonio, will decrease TRICARE costs enough to offset the expenses associated with creating and operating the clinic. The purpose of this study is to quantify and analyze three distinct variables: predicted enrollment and utilization rates; costs of creating and operating a TRICARE Clinic; and the financial impact on the MCSC. These three variables, when analyzed together in the context of a net-present value equation, should yield enough information for WHMC management to make an informed decision about whether or not to proceed with such a project.

Methods and procedures

First, the existing population data must be analyzed to determine where the greatest concentration of unenrolled beneficiaries resides. The literature will be searched to determine an acceptable method to calculate likely enrollment; if no suitable method is found, then guidance from Colonel Peters will dictate the figures used. Second, the historical TRICARE costs and utilization for those beneficiaries must be obtained. These figures will be used to determine predicted utilization rates and expected TRICARE costs. Third, the cost of creating and operating the clinic must be determined. Finally, the projected decrease in the MCSC ("revenue") must be calculated. These three variables (enrollment, costs, revenue) are the key to successful completion of this case analysis. The hypothesis is that the value of the reduction in TRICARE expenses, following the creation of a TRICARE Clinic, will exceed the value of the costs of creating and operating the clinic.

The first step is determining where the largest concentration of unenrolled beneficiaries reside in north San Antonio. Using Microsoft MapPoint software, this area will be identified by using ZIP code data obtained from DEERS. Once an area has been determined, several facilities suitable for a TRICARE Clinic will be surveyed to determine the range of lease prices available. The percentage of beneficiaries that will likely enroll if this clinic is created is not known; therefore, a sensitivity analysis will be performed to determine how different levels of enrollment will yield different healthcare requirements. For example, if the enrolled population is 60% geriatrics in one case, and only 10% in another iteration, the resource requirements for subsequent steps in the cost-benefit analysis will likely vary. In addition, the literature will be searched for a suitable methodology to provide a formula for calculating the likely number of

enrollees from a given population. For this case study, enrollment levels and demand for services will be assumed to remain constant during the out-years.

The staffing requirements for primary care will be driven by the population identified in the first step and modeled according to the AF Surgeon General's "Primary Care Optimization" (PCO) model. Additional staffing requirements will be based on the appropriate Air Force Manpower Standards. Equipment and infrastructure requirements will be determined using the Space and Equipment Planning System (SEPS) software program used by the Air Force Health Facilities Division. This software allows a medical facility to be modeled based on the services offered, the projected workload, and the staffing requirements. It includes square footage requirements, equipment needs, and cost estimates.

Finally, the impact of the TRICARE Clinic on the MCSC will be analyzed; any predicted changes in workload to both the contractor and to WHMC will be analyzed, and the financial impact on the MCSC (BPA) will be incorporated into the cost-benefit analysis. Consultation with Lead Agent personnel will be required in order to determine the exact calculations. All data from the steps referenced above will be incorporated into a Microsoft Excel worksheet, and appropriate formulas will be used to arrive at net-present value figures using the discount rate as referenced in the literature review.

Reliability and Validity

All data obtained from within the MHS is assumed to be reliable and valid in the aggregate. The MHS has instituted an aggressive data-quality (DQ) program in recent years; the program entails each MTF having a DQ manager and DQ committee to audit and trouble-shoot any DQ problems (MHS Data Quality Management Control Review List, 2001). In addition, each MTF commander is required to sign a monthly "Data Quality Statement" attesting to the

timeliness of data submissions, completion of required audits, and compliance with applicable JCAHO and TMA policies (MHS Data Quality Management Control Programs, 2001). Programs and systems reviewed each month include the Medical Expense and Performance Reporting System, the Expense Assignment System, the Composite Health Care System, and the Worldwide Workload Report. TRICARE and DEERS data is audited periodically by the Government Accounting Office, the DoD Inspector General, and other agencies for reporting to Congress, TMA, and other federal agencies. As with the MTF-level data, while there may be occasional problems with individual records, the aggregate data is generally accepted to be reliable and valid, and is suitable for use in this research project

Expected findings and utility of results

This project will determine if a satellite TRICARE Clinic for WHMC would be cost-effective. If the research determines that such a clinic would be cost-effective, specific recommendations will be made regarding the number and type of staff members, the type of services that should be provided, and the location. If the research indicates that the clinic would not be cost-effective, then the data may prove useful in seeking other methods of recapturing private-sector workload, such as partnering with other federal agencies or modifying current marketing strategies. In addition, the spreadsheet tool created during this project may prove useful to other MTFs seeking to recapture workload. It will incorporate all key areas of cost-benefit analysis, including staffing, workload, BPA factors, and demographics. Finally, the process of performing the research will likely yield insights for all participants, from the researcher to Lead Agent staff to WHMC personnel, in terms of understanding the beneficiary population better, and incorporating quantitative tools such as capital investment analysis into the strategic planning process.

Demographics

In analyzing the San Antonio eligible beneficiaries, the largest concentration of unenrolled beneficiaries resides on the north side of San Antonio and Bexar County, with a slightly higher proportion on the northeast side than the northwest side. Given this, a group of ZIP codes incorporating this region was selected. The ZIP codes are 78154, 78213, 78216, 78217, 78230, 78231, 78232, 78233, 78247, 78248, 78249, 78257, 78258, 78259, 78261, and 78266. This geographic area represents a distinct portion of San Antonio, as represented in Appendix A. There are approximately 17,789 unenrolled eligible beneficiaries in these sixteen ZIP codes, as seen in Table 1 according to their beneficiary category.

Table 1

Beneficiary Category	Total Unenrolled Eligibles	Percent of Total
Dependent of Active Duty	2,165	12%
Dependent of Guard/Reserve	205	1%
Dependent of Retired	5,080	29%
Dependent of Survivor	382	2%
Guard/Other	235	1%
Retired <65	3,188	18%
Retired 65+	3,007	17%
Dependent 65+ of Retired	2,096	12%
Dependent 65+ of Survivor	1,431	8%
Total	17,789	100.0%

Determining how many of these beneficiaries would be likely to enroll in a WHMC TRICARE Clinic proved to be difficult. Per conversation with Major Victor Rosenbaum, AF/SGMA, and Major Craig Mauch/Major David Montplaisir, Lead Agent Region VI, in December 2001, there is no accepted methodology within DoD to estimate projected enrollment. In order to proceed with the project, Colonel Peters, WHMC Administrator, was consulted; he

stated that a range of enrollment for these beneficiaries should be based on estimates ranging from 45% to 75% of those under the age of 65. For beneficiaries over the age of 65, he directed that calculations be based on 50% enrollment. Major Gus Schott and Major Montplaisir of the Lead Agent office agreed that these figures were reasonable. In addition, Colonel Peters asked that the calculations be performed both with and without the 65+ enrollees. Thus, a total of six iterations of the model were necessary; three models using both <65 and 65+ enrollees (Appendix B), and three models using only the <65 figures (Appendix C). The models will be referred to as "Option One," "Option 2," and so on.

Table 2

Beneficiary Category	Projected Enrollment	Projected Outpatient Visits
Under 65 @ 45% enrollment	5,065	26,337
65+ @ 50% enrollment	3,267	16,988
Total	8,332	43,325
Under 65 @ 60% enrollment	6,753	35,116
65+ @ 50% enrollment	3,267	16,988
Total	10,020	52,104
Under 65 @ 75% enrollment	8,441	43,895
65+ @ 50% enrollment	3,267	16,988
Total	11,708	60,883

According to the FY 2000 evaluation of the TRICARE program, as reported to Congress, the average number of outpatient visits per enrolled beneficiary in the TRICARE Southwest region in FY 1998 was 5.2. The information in Table 2 presents the projected outpatient visits based on the enrollment figures cited above. This projection of outpatient visits is important, as it

drives the projected staffing according to PCO, and ancillary workload in the Space and Equipment Planning System (SEPS) in the following section.

Costs of Satellite TRICARE Clinic

The Space and Equipment Planning System (SEPS) was used to design clinics using six different enrollment figures for this project. This program is used throughout DoD for the planning of medical facilities. SEPS allows the user to input data according to clinic and department type desired, number of personnel, projected enrollment, estimated workload, and other planning factors. Using DoD-approved formulas, it then creates reports that indicate space, infrastructure, and equipment needs.

Staffing levels for ancillary services and administrative support, independent of PCO requirements as discussed below, were determined using Air Force Manpower Standards (AFMS) and averages obtained from similar-sized MTFs located in Region VI. Laboratory staffing requirements were based on AFMS 5512. Radiology and pharmacy staffing requirements were based on AFMS 5514 and AFMS 5513, respectively, in conjunction with average radiology and pharmacy workload figures that were modeled on workload data obtained from the 71st Medical Group at Vance AFB and the 311th Medical Squadron at Brooks AFB. In addition to clinical and ancillary services, a full-time Medical Information Systems technician has been included in each model, due to the need to keep desktop computers and CHCS terminals operating at all times. Finally, three additional administrative staff members have been included in each model in order to manage TRICARE enrollment issues, patient-advocate functions, and resource management tasks.

Each of the six models in this case study use the AF/SG Primary Care Optimization (PCO) requirements as a baseline. Enrollee-to-provider ratios are based on 1500:1, per PCO

guidance. Support staff requirements call for four nurses, eight medical technicians, and four health-service management technicians for each provider. In addition, each 6,000 enrollees earn .0125 full-time equivalents (FTE) for a Health Care Integrator (HCI) and .0125 FTEs for a Group Practice Manager (GPM) (AETC PCO site, 2001). In the context of this model, the HCI and GPM requirements are merged into a single function and rounded up to one FTE in order to support the facility. All personnel costs used in the models are based on Fiscal Year 2002 salary figures obtained from the Medical Expense and Performance Reporting System (MEPRS),

The other major cost associated with establishing a TRICARE clinic is leased space. According to Mike Hermes, a commercial realtor in San Antonio, the approximate price per square foot of commercial space in the geographic area targeted by the study is $18 (personal communication, January 27, 2002). This figure was confirmed by the owner of Sage Western Properties, Jack Harden, a commercial real estate owner in San Antonio (personal communication, March 29, 2002).

Managed Care Support Contract Impact

If there are to be savings to the government from operating a WHMC TRICARE Clinic, the savings would be reflected in lower TRICARE costs in future years. Due to the complexity of the MCSC and the BPA process, the AF Business Case Analysis spreadsheet tool is commonly used to project the savings to the government for future-years. Maj Gus Schott, TRICARE Lead Agent Region VI, provided the most current AF BCA spreadsheet tool for Region VI. The impact on the MCSC is measured solely in terms of workload variations; increases in the number of outpatient visits by the MTF result in savings to the government. The model only accounts for outpatient visits by active-duty dependents and non-active duty

dependents under the age of 65; the contractor has no obligation to provide care to 65+ beneficiaries, so outpatient visits by 65+ enrollees do not affect the BPA.

Results

Staffing and cost data

The first three models account for enrollees both 65 and under, and those aged 65+. The first model, Option One, requires a total of 31 staff members in order to meet the minimum requirements for a primary care department. An additional 13 personnel are needed for administrative and ancillary support. Annual salary costs to operate the clinic are approximately $2,303,088. The equipment necessary for this clinic, based on SEPS and including office furniture, radiology, lab equipment, and computers, is approximately $3,412,226. Square footage required for this facility is approximately 24,523. The annual cost to lease such a facility would be $294,276. In addition, medical supplies and pharmaceuticals for the satellite clinic would run approximately $455,651 annually. In summary, the first-year operating costs for satellite clinic Option One would be $6,465,241; the estimated operating costs for subsequent years would be approximately $3,053,015. Appendix D contains a list of all required personnel, projected ancillary workload, and supply and equipment costs.

The second model, Option Two, requires a total of 37 staff members for a primary care department. An additional 15 personnel are needed for administrative and ancillary support. Annual salary costs to operate the clinic are approximately $2,788,152, and equipment costs are estimated at $3,524,080. Square footage required for this facility is approximately 26,649, resulting in annual lease costs of $319,788. Medical supplies and pharmaceuticals for the satellite clinic would run approximately $547,947 annually. In summary, the first-year operating costs for satellite clinic Option Two would be $7,179,967; the estimated operating costs for

subsequent years would be approximately $3,655,887. Appendix E contains a list of all required personnel, projected ancillary workload, and supply and equipment costs.

Option Three requires 42 staff members for primary care; an additional 15 personnel are needed for administrative and ancillary support. Annual salary costs are approximately $3,035,725, and equipment costs are estimated at $3,578,491. The square footage requirement is approximately 27,928, resulting in annual lease costs of $335,136. Medical supplies and pharmaceuticals for the satellite clinic would run approximately $640,338 annually. In summary, the first-year operating costs for satellite clinic Option Three would be $7,589,689; the estimated operating costs for subsequent years would be approximately $4,011,198. Appendix F contains a list of all required personnel, projected ancillary workload, and supply and equipment costs.

The next three models account only for enrollees under the age of 65. The first of these models, Option Four, requires a total of 28 staff members in order to meet the minimum requirements for a primary care department. An additional 11 personnel are needed for administrative and ancillary support. Annual salary costs are approximately $1,519,488. Equipment costs are approximately $3,237,500. Square footage required for this facility is approximately 20,209, resulting in annual leasing costs of $242,508. In addition, medical supplies and pharmaceuticals for the satellite clinic would be approximately $276,984 annually. The first-year operating costs for satellite clinic Option Four would be $5,276,984; the estimated operating costs for subsequent years would be approximately $2,038,980. Appendix G contains a list of all required personnel, projected ancillary workload, and supply and equipment costs.

Option Five, again with only age >65 enrollees, is similar to Option Four in that it, too, requires a total of 17 staff members for primary care, with an additional 11 personnel for

administrative and ancillary support. Annual salary costs are estimated at $1,519,488, and equipment costs are approximately $3,357,815. Square footage for this facility is approximately 23,166, with annual lease costs of $277,992. Medical supplies and pharmaceuticals for the satellite clinic would run approximately $369,193 annually. Overall, first-year operating costs for satellite clinic Option Five would be $5,524,488; operating costs for subsequent years would be approximately $2,166,673. Appendix H contains a list of all required personnel, projected ancillary workload, and supply and equipment costs.

The last model, Option Six, requires 17 staff members for primary care, with an additional 12 personnel for administrative and ancillary support. Annual salary costs are approximately $1,575,720, and equipment costs are estimated at $3,412,226. Square footage requirements are 24,664, with annual lease costs of $295,968. Medical supplies and pharmaceuticals for the satellite clinic would run approximately $461,58 annually. In summary, the first-year operating costs for satellite clinic Option Six would be $5,745,495; estimated operating costs for subsequent years would be approximately $2,333,269. Appendix I contains a list of all required personnel, projected ancillary workload, and supply and equipment costs.

Bid-price adjustment calculations

In the first iteration of the WHMC TRICARE clinic, using the smaller estimate of enrollees, the number of outpatient visits by enrollees under the age of 65 is 26,337. The original projected bid-price for the next option period of the contract was $17,002,000. When the 26,337 visits by <65 enrollees are entered into the model, the revised contract price is $16,186,000, resulting in an overall savings of $816,000. That figure, however, is split between the government and the contractor on an 80%-20% basis. The result is a savings to the government of 80% of $816,000, or $652,800.

In the second version, using the middle-range enrollee estimate, the number of visits by <65 enrollees is 35,116, reducing the contract by $1,103,000. The net savings to the government is $883,000. The third version, using the largest projected enrollment figures and resulting in 43,895 outpatient visits by <65 enrollees, reduces the contract by $1,390,000, resulting in a net savings for the government of $1,112,000.

It must be noted that there is no difference between the calculations that incorporate 65+ enrollees and those that do not. The reason is that the BPA is not affected by workload generated by 65+ enrollees. Only workload for active-duty dependents and non-active duty dependents under the age of 65 has any impact on the BPA.

In each of the six iterations, the calculations result in a net loss to WHMC, ranging from a loss of over $16 million for Option Three to a loss of over $8 million for Option Six. The average cost per visit in the models range from $77.42 in Option Four down to $53.16 for Option Six. While these cost per visit figures are competitive with private-sector care, the fact remains that the projected decrease in the MCSC in each option does not adequately offset the expenses that WHMC would incur.

Discussion

The projected results of creating and operating a TRICARE clinic clearly indicate that this project would result in a net financial loss to WHMC, if the actual enrollment, staffing, and supply figures approximate those used in the models. In other words, embarking on such a project would be a money-loser. However, there are steps that could be taken to reduce the costs associated with creating and operating such a clinic, such as reducing the level or type of services offered, or utilizing non-military personnel. In addition, financial considerations alone may not be the best criterion when evaluating this project.

The costs of creating and/or operating the clinic could be reduced in several ways. One such method would be to forego the in-house laboratory in favor of the use of a courier service to shuttle lab specimens to WHMC. This would eliminate the need for all but one or two lab personnel on-site, and substantially reduce the start-up costs. To give one example, in Option Two, the elimination of an in-house laboratory would reduce start-up equipment costs by an estimated $1,262,935. Similarly, creating the TRICARE clinic without a pharmacy, and instead using MTF or civilian pharmacies, would reduce the personnel costs associated with the pharmacy. In these instances, there would still be a cost associated with providing the service, but the equipment expense and most personnel costs associated with building and maintaining these services would be eliminated. Either of these steps would reduce start-up costs and annual operating expenses, while still enabling WHMC to operate a satellite clinic.

Another method that could be utilized to reduce costs is the use of non-active duty employees. Contracted employees, hired via the Resource Support or Resource Support program offered by the Managed Care Support Contractor, are often less expensive than their military counterparts. However, the use of such contracted employees can reduce the amount of savings that WHMC would "earn," because workload that is generated by contracted employees is credited to the contractor, not the military. As a result, the cost savings of such workload are not credited to the MTF. On the other hand, contract employees are generally not subject to the same military-unique training requirements and wartime deployments, so the use of such employees may provide a level of stability that otherwise may be hard to achieve. Another option would be to consider the use of government civilian employees. As with contracted employees, they too are often less expensive than military members. Any workload generated by

government civilian employees would be credited to WHMC, as would any corresponding TRICARE savings.

In strict financial terms, a TRICARE clinic does not make sense. As demonstrated in the models, a TRICARE clinic would be a drain on WHMC and government resources. However, there are other considerations that must be factored into such a decision. Non-financial benefits must be balanced with the financial considerations (Zelman, 1998). Such benefits include increased access to care and the enhancement of the organization's ability to meet its mission. In the case of the TRICARE clinic, this could translate into increased patient satisfaction, the ability to better meet the needs of eligible beneficiaries, and maintaining an adequate stream of patients to accommodate GME requirements. By its very nature, the military health system is a "money loser." While resources must be expended very carefully, it also means that the ultimate challenge is not necessarily to reduce costs as much as possible, but rather to expend resources as wisely as possible. When evaluating the feasibility of creating a TRICARE clinic, non-financial considerations must also play a role.

Conclusion & Recommendations

This research project has demonstrated that a WHMC TRICARE Clinic, located in north San Antonio, would not decrease TRICARE costs enough to offset the expenses associated with creating and operating the clinic. However, a satellite TRICARE clinic could serve several important purposes: extend WHMC's reach into a geographic area with many unenrolled beneficiaries; allow WHMC to supply its crucial GME program with a new source of patients; and enable WHMC to broaden its TRICARE Prime and TRICARE Plus programs. Of course, these benefits would come at a price, and WHMC would have to strive to minimize costs and control enrollment and demand. The consideration of some of the cost-saving measures

described above, such as opting for courier lab service or the use of civil-service employees, should be fully explored before a final decision is made.

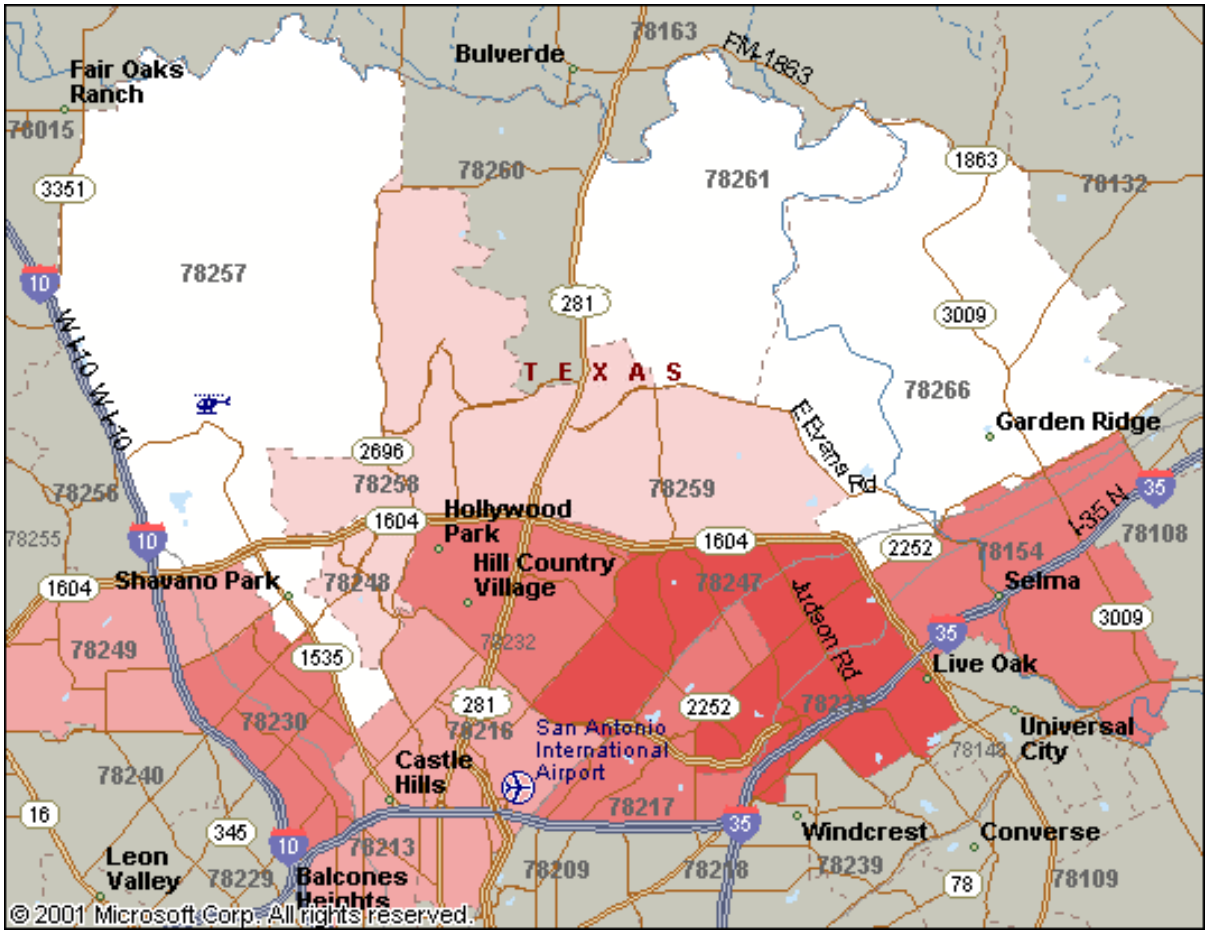
In addition, a market-research survey of unenrolled beneficiaries in the area targeted in this study could be very beneficial. Such a survey could confirm some of the assumptions that this case study is based on; namely, that a suitable number of unenrolled beneficiaries would consider enrolling in TRICARE if a satellite clinic was built. If it is determined that there are enough unenrolled beneficiaries who respond favorably to the idea of a TRICARE clinic, then aggressive marketing strategies would be critical in order to capitalize on this new geographic market segment and enroll the optimum number of beneficiaries (Ginter, 1998).

The issue of "incentivizing" should also be addressed. Under the present financial system and managed-care support contract structure, any savings generated by the creation of a WHMC TRICARE clinic would not accrue directly to WHMC. At the same time, WHMC would be responsible for the expenses associated with the clinic. In other words, WHMC would be faced with spending money, and getting nothing in return, financially. The creation of some sort of "incentive plan," whereby WHMC would be able to keep some of the savings generated by its satellite clinic, should be explored with the Lead Agent and AF/SG staff.

In summary, the creation of a satellite TRICARE clinic with full ancillary support would likely cost more money to operate than it would save. Reduced on-site ancillary service, coupled with the use of at least some non-active duty staff, may lower the costs enough to offset the expense. The strategic benefits of such a clinic, including increased TRICARE enrollment, improved patient satisfaction, and GME patient workload, must be evaluated by WHMC leadership, as those factors may outweigh the financial considerations.

Appendix A

Geographic area used for modeling WHMC TRICARE Clinic



Appendix B

Beneficiary Category	Total Unenrolled Eligibles	Percent of Total	Enrollment Rate	Total Enrollment	Projected Outpatient Visit Per Enrollee	Projected Total Outpatient Visits
Dependent of Active Duty	2,165	12%	**45%**	974	5.2	5,066
Dependent of Guard/Reserve	205	1%	**45%**	92	5.2	480
Dependent of Retired	5,080	29%	**45%**	2,286	5.2	11,887
Dependent of Survivor	382	2%	**45%**	172	5.2	894
Guard/Other	235	1%	**45%**	106	5.2	550
Retired <65	3,188	18%	**45%**	1,435	5.2	7,460
Retired 65+	3,007	17%	**50%**	1,504	5.2	7,818
Dependent 65+ of Retired	2,096	12%	**50%**	1,048	5.2	5,450
Dependent 65+ of Survivor	1,431	8%	**50%**	716	5.2	3,721
Total	17,789	100.0%		8,332		43,325

Beneficiary Category	Total Unenrolled Eligibles	Percent of Total	**Enrollment Rate**	Total Enrollment	Projected Outpatient Visit Per Enrollee	Projected Total Outpatient Visits
Dependent of Active Duty	2,165	12%	**60%**	1,299	5.2	6,755
Dependent of Guard/Reserve	205	1%	**60%**	123	5.2	640
Dependent of Retired	5,080	29%	**60%**	3,048	5.2	15,850
Dependent of Survivor	382	2%	**60%**	229	5.2	1,192
Guard/Other	235	1%	**60%**	141	5.2	733
Retired <65	3,188	18%	**60%**	1,913	5.2	9,947
Retired 65+	3,007	17%	**50%**	1,504	5.2	7,818
Dependent 65+ of Retired	2,096	12%	**50%**	1,048	5.2	5,450
Dependent 65+ of Survivor	1,431	8%	**50%**	716	5.2	3,721
Total	17,789	100.0%		10,020		52,104

Beneficiary Category	Total Unenrolled Eligibles	Percent of Total	**Enrollment Rate**	Total Enrollment	Projected Outpatient Visit Per Enrollee	Projected Total Outpatient Visits
Dependent of Active Duty	2,165	12%	**75%**	1,624	5.2	8,444
Dependent of Guard/Reserve	205	1%	**75%**	154	5.2	800
Dependent of Retired	5,080	29%	**75%**	3,810	5.2	19,812
Dependent of Survivor	382	2%	**75%**	287	5.2	1,490
Guard/Other	235	1%	**75%**	176	5.2	917
Retired <65	3,188	18%	**75%**	2,391	5.2	12,433
Retired 65+	3,007	17%	**50%**	1,504	5.2	7,818
Dependent 65+ of Retired	2,096	12%	**50%**	1,048	5.2	5,450
Dependent 65+ of Survivor	1,431	8%	**50%**	716	5.2	3,721
Total	17,789	100.0%		11,708		60,883

Appendix C

Beneficiary Category	Total Unenrolled Eligibles	Percent of Total	**Enrollment Rate**	Total Enrollment	Projected Outpatient Visit Per Enrollee	Projected Total Outpatient Visits
Dependent of Active Duty	2,165	12%	**45%**	974	5.2	5,066
Dependent of Guard/Reserve	205	1%	**45%**	92		480
Dependent of Retired	5,080	29%	**45%**	2,286		11,887
Dependent of Survivor	382	2%	**45%**	172		894
Guard/Other	235	1%	**45%**	106		550
Retired <65	3,188	18%	**45%**	1,435		7,460
Retired 65+	3,007	17%	**0%**	-		-
Dependent 65+ of Retired	2,096	12%	**0%**	-		-
Dependent 65+ of Survivor	1,431	8%	**0%**	-		-
Total	17,789	100.0%		5,065		26,337

Beneficiary Category	Total Unenrolled Eligibles	Percent of Total	**Enrollment Rate**	Total Enrollment	Projected Outpatient Visit Per Enrollee	Projected Total Outpatient Visits
Dependent of Active Duty	2,165	12%	**60%**	1,299	5.2	6,755
Dependent of Guard/Reserve	205	1%	**60%**	123		640
Dependent of Retired	5,080	29%	**60%**	3,048		15,850
Dependent of Survivor	382	2%	**60%**	229		1,192
Guard/Other	235	1%	**60%**	141		733
Retired <65	3,188	18%	**60%**	1,913		9,947
Retired 65+	3,007	17%	**0%**	-		-
Dependent 65+ of Retired	2,096	12%	**0%**	-		-
Dependent 65+ of Survivor	1,431	8%	**0%**	-		-
Total	17,789	100.0%		6,753		35,116

Beneficiary Category	Total Unenrolled Eligibles	Percent of Total	**Enrollment Rate**	Total Enrollment	Projected Outpatient Visit Per Enrollee	Projected Total Outpatient Visits
Dependent of Active Duty	2,165	12%	**75%**	1,624	5.2	8,444
Dependent of Guard/Reserve	205	1%	**75%**	154		800
Dependent of Retired	5,080	29%	**75%**	3,810		19,812
Dependent of Survivor	382	2%	**75%**	287		1,490
Guard/Other	235	1%	**75%**	176		917
Retired <65	3,188	18%	**75%**	2,391		12,433
Retired 65+	3,007	17%	**0%**	-		-
Dependent 65+ of Retired	2,096	12%	**0%**	-		-
Dependent 65+ of Survivor	1,431	8%	**0%**	-		-
Total	17,789	100.0%		8,441		43,895

Appendix D

Estimated Costs of "OPTION ONE" WHMC TRICARE Satellite Clinic

AFSC Description	Area	Grade	Qty	Monthly/Per	Monthly Total	Annual Salary
Physician	Primary Care	O-4	1	$8,587	$8,587	$103,044
Physician	Primary Care	O-3	5	$7,083	$35,415	$424,980
Nurse	Primary Care	O-3	1	$7,083	$7,083	$84,996
Nurse	Primary Care	O-2	5	$5,203	$26,015	$312,180
HCI/GPM	Primary Care	O-3	1	$7,083	$7,083	$84,996
Medical Technician	Primary Care	E-7	1	$4,686	$4,686	$56,232
Medical Technician	Primary Care	E-5	3	$3,504	$10,512	$126,144
Medical Technician	Primary Care	E-3	8	$2,339	$18,712	$224,544
			25		**$118,093**	**$1,417,116**
Health Serv Mgmt	Primary Care	E-6	1	$4,109	$4,109	$49,308
Health Serv Mgmt	Primary Care	E-4	2	$2,890	$5,780	$69,360
Health Serv Mgmt	Primary Care	E-2	3	$2,163	$6,489	$77,868
			6		**$16,378**	**$196,536**
MSC	TRICARE	O-3	1	$7,083	$7,083	$84,996
Health Serv Mgmt	TRICARE	E-5	2	$3,504	$7,008	$84,096
			3		**$14,091**	**$169,092**
Health Serv Mgmt	Info Systems	E-5	1	$3,504	$3,504	$42,048
			1		**$3,504**	**$42,048**
Pharmacist	Pharmacy	O-3	1	$7,083	$7,083	$84,996
Pharmacy Tech	Pharmacy	E-5	1	$3,504	$3,504	$42,048
			2		**$10,587**	**$127,044**
Lab Officer	Laboratory	O-3	1	$7,083	$7,083	$84,996
Lab Tech	Laboratory	E-7	1	$4,686	$4,686	$56,232
Lab Tech	Laboratory	E-6	1	$4,109	$4,109	$49,308
Lab Tech	Laboratory	E-5	1	$3,504	$3,504	$42,048
Lab Tech	Laboratory	E-4	1	$2,890	$2,890	$34,680
			5		**$22,272**	**$267,264**
Radiology Tech	Radiology	E-6	1	$4,109	$4,109	$49,308
Radiology Tech	Radiology	E-4	1	$2,890	$2,890	$34,680
			2		**$6,999**	**$83,988**
TOTAL SALARY COSTS			**44**		**$191,924**	**$2,303,088**
Leased Space	$18/sq ft annual		1	$18	24,523	$294,276
					$24,523	**$294,276**
Equipment	IOC		1	$1	$3,412,226	$3,412,226
					$3,412,226	**$3,412,226**
Other Supplies	Visits		3610	$2.06	$7,437	$89,250
Laboratory	Lab procedures		2668	$0.76	$2,027	$24,328
Radiology	Radiology films		109	$4.39	$480	$5,764
Pharmacy	Prescriptions		1889	$14.84	$28,026	$336,309
					$37,971	**$455,651**
				GRAND TOTAL		**$6,465,241**
				Minus IOC		-$3,412,226
				ANNUAL OPERATING COST		**$3,053,015**
				COST PER OUTPATIENT VISIT		**$70.47**

Appendix E

Estimated Costs of "OPTION TWO" WHMC TRICARE Satellite Clinic

AFSC Description	Area	Grade	Qty	Monthly/Per	Monthly Total	Annual Salary
Physician	Primary Care	O-4	1	$8,587	$8,587	$103,044
Physician	Primary Care	O-3	6	$7,083	$42,498	$509,976
Nurse	Primary Care	O-3	2	$7,083	$14,166	$169,992
Nurse	Primary Care	O-2	5	$5,203	$26,015	$312,180
HCI/GPM	Primary Care	O-3	2	$7,083	$14,166	$169,992
Medical Technician	Primary Care	E-7	2	$4,686	$9,372	$112,464
Medical Technician	Primary Care	E-5	4	$3,504	$14,016	$168,192
Medical Technician	Primary Care	E-3	8	$2,339	$18,712	$224,544
			30		**$147,532**	**$1,770,384**
Health Serv Mgmt	Primary Care	E-6	1	$4,109	$4,109	$49,308
Health Serv Mgmt	Primary Care	E-4	3	$2,890	$8,670	$104,040
Health Serv Mgmt	Primary Care	E-2	3	$2,163	$6,489	$77,868
			7		**$19,268**	**$231,216**
Administrator	TRICARE	O-3	1	$7,083	$7,083	$84,996
Health Serv Mgmt	TRICARE	E-5	2	$3,504	$7,008	$84,096
			3		**$14,091**	**$169,092**
Health Serv Mgmt	Info Systems	E-5	1	$3,504	$3,504	$42,048
			1		**$3,504**	**$42,048**
Pharmacist	Pharmacy	O-3	1	$7,083	$7,083	$84,996
Pharmacist	Pharmacy	O-2	1	$5,203	$5,203	$62,436
Pharmacy Tech	Pharmacy	E-5	1	$3,504	$3,504	$42,048
			3		**$15,790**	**$189,480**
Lab Officer	Laboratory	O-3	1	$7,083	$7,083	$84,996
Lab Tech	Laboratory	E-7	1	$4,686	$4,686	$56,232
Lab Tech	Laboratory	E-6	1	$4,109	$4,109	$49,308
Lab Tech	Laboratory	E-5	1	$3,504	$3,504	$42,048
Lab Tech	Laboratory	E-4	2	$2,890	$5,780	$69,360
			6		**$25,162**	**$301,944**
Radiology Tech	Radiology	E-6	1	$4,109	$4,109	$49,308
Radiology Tech	Radiology	E-4	1	$2,890	$2,890	$34,680
			2		**$6,999**	**$83,988**
TOTAL SALARY COSTS			**52**		**$232,346**	**$2,788,152**
Leased Space	$18/sq ft annual		1	$18	26,649	$319,788
					26,649	**$319,788**
Equipment	IOC		1	$1	3,524,080	$3,524,080
					3,524,080	**$3,524,080**
Other Supplies	Visits		4342	$2.06	$8,945	$107,334
Laboratory	Lab procedures		3209	$0.76	$2,438	$29,262
Radiology	Radiology films		132	$4.39	$578	$6,932
Pharmacy	Prescriptions		2271	$14.84	$33,702	$404,420
					$45,662	**$547,947**

GRAND TOTAL	**$7,179,967**
Minus IOC	-$3,524,080
ANNUAL OPERATING COST	**$3,655,887**
COST PER OUTPATIENT VISIT	**$70.17**

Appendix F

Estimated Costs of "OPTION THREE" WHMC TRICARE Satellite Clinic

AFSC Description	Area	Grade	Qty	Monthly/Per	Monthly Total	Annual Salary
Physician	Primary Care	O-4	2	$8,587	$17,174	$206,088
Physician	Primary Care	O-3	6	$7,083	$42,498	$509,976
Nurse	Primary Care	O-3	2	$7,083	$14,166	$169,992
Nurse	Primary Care	O-2	6	$5,203	$31,218	$374,616
HCI/GPM	Primary Care	O-3	2	$7,083	$14,166	$169,992
Medical Technician	Primary Care	E-7	2	$4,686	$9,372	$112,464
Medical Technician	Primary Care	E-5	4	$3,504	$14,016	$168,192
Medical Technician	Primary Care	E-3	10	$2,339	$23,390	$280,680
			34		**$166,000**	**$1,992,000**
Health Serv Mgmt	Primary Care	E-6	1	$4,109	$4,109	$49,308
Health Serv Mgmt	Primary Care	E-4	3	$2,890	$8,670	$104,040
Health Serv Mgmt	Primary Care	E-2	4	$2,163	$8,652	$103,824
			8		**$21,431**	**$257,172**
Administrator	TRICARE	O-3	1	$7,083	$7,083	$84,996
Health Serv Mgmt	TRICARE	E-5	2	$3,504	$7,008	$84,096
			3		**$14,091**	**$169,092**
Health Serv Mgmt	Info Systems	E-5	1	$3,504	$3,504	$42,048
			1		**$3,504**	**$42,048**
Pharmacist	Pharmacy	O-3	1	$7,083	$7,083	$84,996
Pharmacist	Pharmacy	O-2	1	$5,203	$5,203	$62,436
Pharmacy Tech	Pharmacy	E-5	1	$3,504	$3,504	$42,048
			3		**$15,790**	**$189,480**
Lab Officer	Laboratory	O-3	1	$7,083	$7,083	$84,996
Lab Tech	Laboratory	E-7	1	$4,686	$4,686	$56,232
Lab Tech	Laboratory	E-6	1	$4,109	$4,109	$49,308
Lab Tech	Laboratory	E-5	1	$3,504	$3,504	$42,048
Lab Tech	Laboratory	E-4	2	$2,890	$5,780	$69,360
			6		**$25,162**	**$301,944**
Radiology Tech	Radiology	E-6	1	$4,109	$4,109	$49,308
Radiology Tech	Radiology	E-4	1	$2,890	$2,890	$34,680
			2		**$6,999**	**$83,988**
TOTAL SALARY COSTS			**57**		**$252,977**	**$3,035,724**
Leased Space	$18/sq ft annual		1	$18	27,928	$335,136
					27,928	**$335,136**
Equipment	IOC		1	$1	3,578,491	$3,578,491
					3,578,491	**$3,578,491**
Other Supplies	Visits		5074	$2.06	$10,452	$125,419
Laboratory	Lab procedures		3749	$0.76	$2,850	$34,195
Radiology	Radiology films		154	$4.39	$675	$8,100
Pharmacy	Prescriptions		2654	$14.84	$39,385	$472,624
					$53,361	**$640,338**
					GRAND TOTAL	**$7,589,689**
					Minus IOC	-$3,578,491
					ANNUAL OPERATING COST	**$4,011,198**
					COST PER OUTPATIENT VISIT	**$65.88**

Appendix G

Estimated Costs of "OPTION FOUR" WHMC TRICARE Satellite Clinic

AFSC Description	Area	Grade	Qty	Monthly/Per	Monthly Total	Annual Salary
Physician	Primary Care	O-4	1	$8,587	$8,587	$103,044
Physician	Primary Care	O-3	2	$7,083	$14,166	$169,992
Nurse	Primary Care	O-3	1	$7,083	$7,083	$84,996
Nurse	Primary Care	O-2	2	$5,203	$10,406	$124,872
HCI/GPM	Primary Care	O-3	1	$7,083	$7,083	$84,996
Medical Technician	Primary Care	E-7	1	$4,686	$4,686	$56,232
Medical Technician	Primary Care	E-5	2	$3,504	$7,008	$84,096
Medical Technician	Primary Care	E-3	3	$2,339	$7,017	$84,204
			13		**$66,036**	**$792,432**
Health Serv Mgmt	Primary Care	E-6	1	$4,109	$4,109	$49,308
Health Serv Mgmt	Primary Care	E-4	1	$2,890	$2,890	$34,680
Health Serv Mgmt	Primary Care	E-2	2	$2,163	$4,326	$51,912
			4		**$11,325**	**$135,900**
MSC	TRICARE	O-3	1	$7,083	$7,083	$84,996
Health Serv Mgmt	TRICARE	E-5	1	$3,504	$3,504	$42,048
			2		**$10,587**	**$127,044**
Health Serv Mgmt	Info Systems	E-5	1	$3,504	$3,504	$42,048
			1		**$3,504**	**$42,048**
Pharmacist	Pharmacy	O-3	1	$7,083	$7,083	$84,996
Pharmacy Tech	Pharmacy	E-5	1	$3,504	$3,504	$42,048
			2		**$10,587**	**$127,044**
Lab Officer	Laboratory	O-3	1	$7,083	$7,083	$84,996
Lab Tech	Laboratory	E-6	1	$4,109	$4,109	$49,308
Lab Tech	Laboratory	E-5	1	$3,504	$3,504	$42,048
Lab Tech	Laboratory	E-4	1	$2,890	$2,890	$34,680
			4		**$17,586**	**$211,032**
Radiology Tech	Radiology	E-6	1	$4,109	$4,109	$49,308
Radiology Tech	Radiology	E-4	1	$2,890	$2,890	$34,680
			2		**$6,999**	**$83,988**
TOTAL SALARY COSTS			**28**		**$126,624**	**$1,519,488**
Leased Space	$18/sq ft annual		1	$18	20,209	$242,508
					$20,209	**$242,508**
Equipment	IOC		1	$1	$3,237,500	$3,237,500
					$3,237,500	**$3,237,500**
Other Supplies	Visits		2195	$2.06	$4,521	$54,254
Laboratory	Lab procedures		1622	$0.76	$1,233	$14,790
Radiology	Radiology films		67	$4.39	$292	$3,503
Pharmacy	Prescriptions		1148	$14.84	$17,036	$204,436
					$23,082	**$276,984**
				GRAND TOTAL		**$5,276,480**
				Minus IOC		-$3,237,500
				ANNUAL OPERATING COST		**$2,038,980**
				COST PER OUTPATIENT VISIT		**$77.42**

Appendix H

Estimated Costs of "OPTION FIVE" WHMC TRICARE Satellite Clinic

AFSC Description	Area	Grade	Qty	Monthly/Per	Monthly Total	Annual Salary
Physician	Primary Care	O-4	1	$8,587	$8,587	$103,044
Physician	Primary Care	O-3	2	$7,083	$14,166	$169,992
Nurse	Primary Care	O-3	1	$7,083	$7,083	$84,996
Nurse	Primary Care	O-2	2	$5,203	$10,406	$124,872
HCI/GPM	Primary Care	O-3	1	$7,083	$7,083	$84,996
Medical Technician	Primary Care	E-7	1	$4,686	$4,686	$56,232
Medical Technician	Primary Care	E-5	2	$3,504	$7,008	$84,096
Medical Technician	Primary Care	E-3	3	$2,339	$7,017	$84,204
			13		**$66,036**	**$792,432**
Health Serv Mgmt	Primary Care	E-6	1	$4,109	$4,109	$49,308
Health Serv Mgmt	Primary Care	E-4	1	$2,890	$2,890	$34,680
Health Serv Mgmt	Primary Care	E-2	2	$2,163	$4,326	$51,912
			4		**$11,325**	**$135,900**
MSC	TRICARE	O-3	1	$7,083	$7,083	$84,996
Health Serv Mgmt	TRICARE	E-5	1	$3,504	$3,504	$42,048
			2		**$10,587**	**$127,044**
Health Serv Mgmt	Info Systems	E-5	1	$3,504	$3,504	$42,048
			1		**$3,504**	**$42,048**
Pharmacist	Pharmacy	O-3	1	$7,083	$7,083	$84,996
Pharmacy Tech	Pharmacy	E-5	1	$3,504	$3,504	$42,048
			2		**$10,587**	**$127,044**
Lab Officer	Laboratory	O-3	1	$7,083	$7,083	$84,996
Lab Tech	Laboratory	E-6	1	$4,109	$4,109	$49,308
Lab Tech	Laboratory	E-5	1	$3,504	$3,504	$42,048
Lab Tech	Laboratory	E-4	1	$2,890	$2,890	$34,680
			4		**$17,586**	**$211,032**
Radiology Tech	Radiology	E-6	1	$4,109	$4,109	$49,308
Radiology Tech	Radiology	E-4	1	$2,890	$2,890	$34,680
			2		**$6,999**	**$83,988**
TOTAL SALARY COSTS			**28**		**$126,624**	**$1,519,488**
Leased Space	$18/sq ft annual		1	$18	23,166	$277,992
					$23,166	**$277,992**
Equipment	IOC		1	$1	$3,357,815	$3,357,815
					$3,357,815	**$3,357,815**
Other Supplies	Visits		2926	$2.06	$6,028	$72,339
Laboratory	Lab procedures		2162	$0.76	$1,643	$19,720
Radiology	Radiology films		89	$4.39	$389	$4,671
Pharmacy	Prescriptions		1530	$14.84	$22,705	$272,462
					$30,766	**$369,193**
				GRAND TOTAL		**$5,524,488**
				Minus IOC		-$3,357,815
				ANNUAL OPERATING COST		**$2,166,673**
				COST PER OUTPATIENT VISIT		**$61.70**

Appendix I

Estimated Costs of "OPTION SIX" WHMC TRICARE Satellite Clinic

AFSC Description	Area	Grade	Qty	Monthly/Per	Monthly Total	Annual Salary
Physician	Primary Care	O-4	1	$8,587	$8,587	$103,044
Physician	Primary Care	O-3	2	$7,083	$14,166	$169,992
Nurse	Primary Care	O-3	1	$7,083	$7,083	$84,996
Nurse	Primary Care	O-2	2	$5,203	$10,406	$124,872
HCI/GPM	Primary Care	O-3	1	$7,083	$7,083	$84,996
Medical Technician	Primary Care	E-7	1	$4,686	$4,686	$56,232
Medical Technician	Primary Care	E-5	2	$3,504	$7,008	$84,096
Medical Technician	Primary Care	E-3	3	$2,339	$7,017	$84,204
			13		**$66,036**	**$792,432**
Health Serv Mgmt	Primary Care	E-6	1	$4,109	$4,109	$49,308
Health Serv Mgmt	Primary Care	E-4	1	$2,890	$2,890	$34,680
Health Serv Mgmt	Primary Care	E-2	2	$2,163	$4,326	$51,912
			4		**$11,325**	**$135,900**
MSC	TRICARE	O-3	1	$7,083	$7,083	$84,996
Health Serv Mgmt	TRICARE	E-5	1	$3,504	$3,504	$42,048
			2		**$10,587**	**$127,044**
Health Serv Mgmt	Info Systems	E-5	1	$3,504	$3,504	$42,048
			1		**$3,504**	**$42,048**
Pharmacist	Pharmacy	O-3	1	$7,083	$7,083	$84,996
Pharmacy Tech	Pharmacy	E-5	1	$3,504	$3,504	$42,048
			2		**$10,587**	**$127,044**
Lab Officer	Laboratory	O-3	1	$7,083	$7,083	$84,996
Lab Tech	Laboratory	E-7	1	$4,686	$4,686	$56,232
Lab Tech	Laboratory	E-6	1	$4,109	$4,109	$49,308
Lab Tech	Laboratory	E-5	1	$3,504	$3,504	$42,048
Lab Tech	Laboratory	E-4	1	$2,890	$2,890	$34,680
			5		**$22,272**	**$267,264**
Radiology Tech	Radiology	E-6	1	$4,109	$4,109	$49,308
Radiology Tech	Radiology	E-4	1	$2,890	$2,890	$34,680
			2		**$6,999**	**$83,988**
TOTAL SALARY COSTS			**29**		**$131,310**	**$1,575,720**
Leased Space	$18/sq ft annual		1	$18	24,664	$295,968
					$24,664	**$295,968**
Equipment	IOC		1	$1	$3,412,226	$3,412,226
					$3,412,226	**$3,412,226**
Other Supplies	Visits		3658	$2.06	$7,535	$90,424
Laboratory	Lab procedures		2703	$0.76	$2,054	$24,651
Radiology	Radiology films		111	$4.39	$487	$5,839
Pharmacy	Prescriptions		1913	$14.84	$28,389	$340,667
					$38,465	**$461,581**
				GRAND TOTAL		**$5,745,495**
				Minus IOC		-$3,412,226
				ANNUAL OPERATING COST		**$2,333,269**
				COST PER OUTPATIENT VISIT		**$53.16**

Appendix J

Net Present Value Calculations

Discount Rate 3.2%	Year 1	Year 2	Year 3	Year 4	Year 5
OPTION ONE					
Projected Expenses	$6,465,241	$3,053,015	$3,053,015	$3,053,015	$3,053,015
Projected Revenues	$652,800	$652,800	$652,800	$652,800	$652,800
Net Income (Revenues-Total Expenses)	($5,812,441)	($2,400,215)	($2,400,215)	($2,400,215)	($2,400,215)
Discounted Cash Flow	($5,632,210)	($2,253,672)	($2,183,791)	($2,116,076)	($2,050,462)
Net Present Value	**($14,236,212)**	(sum of all discounted cash flows)			

Discount Rate 3.2%	Year 1	Year 2	Year 3	Year 4	Year 5
OPTION TWO					
Projected Expenses	$7,179,967	$3,655,887	$3,655,887	$3,655,887	$3,655,887
Projected Revenues	$883,000	$883,000	$883,000	$883,000	$883,000
Net Income (Revenues-Total Expenses)	($6,296,967)	($2,772,887)	($2,772,887)	($2,772,887)	($2,772,887)
Discounted Cash Flow	($6,101,712)	($2,603,591)	($2,522,860)	($2,444,631)	($2,368,829)
Net Present Value	**($16,041,623)**	(sum of all discounted cash flows)			

Discount Rate 3.2%	Year 1	Year 2	Year 3	Year 4	Year 5
OPTION THREE					
Projected Expenses	$7,589,689	$4,011,198	$4,011,198	$4,011,198	$4,011,198
Projected Revenues	$1,112,000	$1,112,000	$1,112,000	$1,112,000	$1,112,000
Net Income (Revenues-Total Expenses)	($6,477,689)	($2,899,198)	($2,899,198)	($2,899,198)	($2,899,198)
Discounted Cash Flow	($6,276,830)	($2,722,190)	($2,637,781)	($2,555,990)	($2,476,734)
Net Present Value	**($16,669,526)**	(sum of all discounted cash flows)			

Appendix K

Net Present Value Calculations

Discount Rate 3.2%	Year 1	Year 2	Year 3	Year 4	Year 5
OPTION FOUR					
Projected Expenses	$5,276,480	$2,038,980	$2,038,980	$2,038,980	$2,038,980
Projected Revenues	$652,800	$652,800	$652,800	$652,800	$652,800
Net Income (Revenues-Total Expenses)	($4,623,680)	($1,386,180)	($1,386,180)	($1,386,180)	($1,386,180)
Discounted Cash Flow	($4,480,310)	($1,301,548)	($1,261,190)	($1,222,083)	($1,184,189)
Net Present Value	**($9,449,321)**	(sum of all discounted cash flows)			

Discount Rate 3.2%	Year 1	Year 2	Year 3	Year 4	Year 5
OPTION FIVE					
Projected Expenses	$5,524,488	$2,166,673	$2,166,673	$2,166,673	$2,166,673
Projected Revenues	$883,000	$883,000	$883,000	$883,000	$883,000
Net Income (Revenues-Total Expenses)	($4,641,488)	($1,283,673)	($1,283,673)	($1,283,673)	($1,283,673)
Discounted Cash Flow	($4,497,566)	($1,205,300)	($1,167,926)	($1,131,711)	($1,096,619)
Net Present Value	**($9,099,122)**	(sum of all discounted cash flows)			

Discount Rate 3.2%	Year 1	Year 2	Year 3	Year 4	Year 5
OPTION SIX					
Projected Expenses	$5,745,495	$2,333,269	$2,333,269	$2,333,269	$2,333,269
Projected Revenues	$1,112,000	$1,112,000	$1,112,000	$1,112,000	$1,112,000
Net Income (Revenues-Total Expenses)	($4,633,495)	($1,221,269)	($1,221,269)	($1,221,269)	($1,221,269)
Discounted Cash Flow	($4,489,821)	($1,146,706)	($1,111,149)	($1,076,695)	($1,043,309)
Net Present Value	**($8,867,679)**	(sum of all discounted cash flows)			

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